

GROUNDWATER CONFLICTS IN UNREGULATED AREAS

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State Bar of Texas
17TH ANNUAL
CHANGING FACE OF WATER RIGHTS COURSE
February 25-26, 2016
San Antonio

CHAPTER 14

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TABLE OF CONTENTS

I. INTRODUCTION..... 1

II. THE ELECTRO PURIFICATION PROJECT..... 1

III. CONFLICTS 2

 A. Groundwater Exportation Projects 2

 B. Inconsistent Policy: Public vs. Private Liability..... 3

 C. Groundwater Management 4

 D. Water Planning 6

 E. Impacts to Springflow and Surface Water..... 6

IV. CONCLUSION 7

APPENDIX A 9

APPENDIX B 10

APPENDIX C 11

GROUNDWATER CONFLICTS IN UNREGULATED AREAS

Till taught by pain, men know not water's worth.

Byron

I. INTRODUCTION

In Texas, landowners own the groundwater beneath their land. The Legislature has proclaimed this to be the law, and the Texas Supreme Court has affirmed it. Chapter 36 of the Texas Water Code states, “[t]he legislature recognizes that a landowner owns the groundwater below the surface of the landowner's land as real property,” and in *Edwards Aquifer Auth. v. Day*, the Texas Supreme Court held, “land ownership includes an interest in groundwater in place that cannot be taken for public use without adequate compensation guaranteed by article I, section 17(a) of the Texas Constitution.”¹ Additionally, the Court in *Day* held that groundwater is subject to reasonable regulation through groundwater conservation districts.²

Ownership of groundwater entitles a landowner to certain rights, which Chapter 36 of the Water Code articulates. A landowner is entitled to “drill for and produce the groundwater below the surface of real property, subject to section (d), without causing waste or malicious drainage of other property or negligently causing subsidence.”³ This statutory language describes the rule of capture in Texas – a court created doctrine, which, with a few exceptions, refuses to impose liability on a landowner who dries up his neighbor’s groundwater wells as a result of pumping groundwater from beneath his land for a beneficial purpose.⁴

Key is that while a landowner is entitled to drill for and produce groundwater below the surface of his property, he is *subject to section (d)* of Chapter 36. Section (d) authorizes groundwater conservation districts (“GCDs”), where they exist, to enact spacing and tract size rules for wells, to regulate groundwater production, and to allocate to each landowner a proportionate share of groundwater for production based on the number of acres owned by each landowner.⁵ The point of these provisions, and of Chapter 36 in general, is “to protect property rights” and to “balance the conservation and development of groundwater to meet the needs of this state.”⁶ In areas

of Texas where a groundwater conservation district exists, therefore, a landowner’s right to pump is tempered by the Water Code’s goals of protecting property rights and protecting the resource.

Approximately one-third of Texas, however, is not regulated by a groundwater conservation district. [see Appendix A]. In areas of the state without a groundwater conservation district, a landowner’s right to pump groundwater from beneath his property is limited only by the exceptions to the rule of capture – he cannot cause waste, malicious drainage or subsidence. Beyond these exceptions, in unregulated areas of Texas, there are no mechanisms in place to ensure that groundwater is protected. During a time of unparalleled pressure on groundwater resources across the state, the lack of groundwater protections in some areas of Texas is causing a variety of unique conflicts.

II. THE ELECTRO PURIFICATION PROJECT

The Electro Purification (“EP”) groundwater development project (“EP Project”) in Hays County is a paradigm for the conflicts that are borne out of a lack of groundwater regulation and reliance on the rule of capture. The project, which sought to pump almost 6,000 acre feet a year from the Trinity Aquifer and pipe to growing communities along the I-35 corridor was highly controversial. The idea – that one landowner, whether that landowner is subject to groundwater regulations or not, can pump groundwater from a common pool, shared resource upon which most rural landowners depend for basic domestic needs and sell it to growing cities miles away – is a major source of conflict in Texas today. There are numerous examples of this conflict, from the Vista Ridge pipeline project, which would pump groundwater from the Carrizo Aquifer in Borden County to San Antonio, the Forestar Project in Lee County, and groundwater development projects from the Edwards-Trinity in Val Verde County.

The outrage over the EP project in Hays County is an embodiment of this larger tension between urban and rural communities, one made more urgent due to the lack of regulatory protections for groundwater in place. The EP well fields were strategically located in an area of the Hill Country where the Trinity Aquifer was, initially, unregulated [see Appendix B]. In portions of Hays County, the Trinity Aquifer underlays

¹ Tex. Water Code § 36.002; *Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814 (Tex. 2012).

² *Day*, 369 S.W.3d 814, 840-841 (Tex. 2012).

³ Tex. Water Code § 36.002(b)(1).

⁴ The Texas Supreme Court has crafted a few exceptions to the rule of capture. A landowner cannot pump and use groundwater maliciously with the purpose of injuring a neighbor or in a manner that amounts to wanton and willful

waste of groundwater. See *City of Corpus Christi v. City of Pleasanton*, 154 Tex. 289, 276 S.W.2d 798, 801 (1955). A landowner can be held liable for the negligent pumping of groundwater that causes subsidence of adjacent land. See *Friendswood Dev. Co. v. Smith-Southwest Indus., Inc.*, 576 S.W.2d 21, 30 (Tex. 1978).

⁵ Tex. Water Code § 36.002 (d)(1)-(3).

⁶ Tex. Water Code § 36.0015(b).

the Edwards Aquifer, and while the Edwards Aquifer Authority (“EAA”) has jurisdiction over the Edwards Aquifer, it does not have the authority to regulate the Trinity. The two other groundwater conservation districts in Hays County which manage the Trinity Aquifer, the Hays Trinity Groundwater Conservation District and the Barton Springs Edwards Aquifer Conservation District (“BSEACD”), did not have jurisdiction over the Trinity Aquifer in the areas where the EAA regulates the Edwards Aquifer. The result was that at the outset of the EP project, the Trinity Aquifer beneath the Edwards was unregulated and subject only to the rule of capture.

The EP well fields were in the immediate vicinity of hundreds of domestic wells providing the sole source of water supply to homes in the area. Most of the community was unaware that the Trinity beneath their land was unregulated, as the gap in regulation could not be ascertained from a two dimensional map. Fearing that the significant amount of groundwater the project sought to pump would dry up nearby wells and springs, the local community galvanized behind a movement to stop the project or to include the area in a groundwater conservation district. Locals took legal action to stop the project and lobbied for the passage of House Bill 3405, which ultimately extended the jurisdiction of BSEACD over unregulated areas of the Trinity Aquifer in this part of Hays County. [see Appendix C].

There are many reasons why the EP project was so controversial – from the community’s revelation that the Trinity was unprotected, to the audacity of the private water developers to have targeted the Trinity as a water supply source in the first place, as hydrogeologists have never considered the Trinity to be a prolific aquifer. Perhaps the main reason why the project was so infamous, however, is that it exposed the conflicts that are caused not just by a lack of groundwater regulation, but by a lack of regulation during this new era – where declining aquifers in rural areas of the state are facing extreme pressures from a growing urban demand for water.

III. CONFLICTS

A. Groundwater Exportation Projects

The quintessential conflict that occurs when no groundwater regulations exist is between neighbors—the one who is pumping groundwater and the one who is concerned his wells will go dry as a result. This

conflict is not unique. Since 1904 when the Texas Supreme Court adopted the rule of capture, this conflict between neighbors has been the foundation upon which every plaintiff has argued before the Texas Supreme Court asking the Court to overturn the rule of capture.

In the present day, however, new facts are differentiating this age old conflict between landowners. The increase in groundwater exportation projects, which aim to pipe groundwater from rural areas to growing urban areas have intensified conflicts between adjacent landowners. A landowner who sells his groundwater to groundwater developers is often resented by neighbors not only because a large scale groundwater project could impact nearby wells, but also because in the eyes of the community, these landowners are viewed as taking advantage of an absence of groundwater regulation to line their pocket books. This was common rhetoric among the community in Hays County directed toward the landowners who leased their ranches to EP.

Had the landowners in Hays County decided to pump a significant amount of groundwater on their ranches for their own agricultural use rather than for municipal use miles away, the local outrage would likely have been far less intense. Something just feels wrong with landowners and corporate water suppliers using a lack of regulatory protections to their financial advantage. As a Hays County Commissioner wrote, “[t]he rule of capture should not be the only rule that applies to a corporate entity with the intentions of commercial distribution of water resources.”⁷ Recognition of this inequity is why there is a “powerful motivation among rural communities to create GCDs in a defensive posture to prevent exports of groundwater to urban areas.”⁸ Surprisingly, however, had the facts in *Houston Texas Central Railroad Company v. W.A. East*⁹ been similar to those in the EP project, the Texas Supreme Court might have created an exception to the rule of capture in 1904.

In the *East* case, the Houston and Texas Central Railroad Company dug a groundwater well on property it owned in Denison, Texas to supply water for its locomotives and machines shops. The well produced about 25,000 gallons per day, ultimately causing the plaintiff’s domestic well, which was dug prior to the railroad company’s well, to run dry. The Court spent considerable time discussing the scenario of a

⁷ Letter from Commissioner Will Conley, Hays County to Citizens of Hays County (January 2015) available at <http://smcorridornews.com/news/533/commissioner-conley-unregulated-well-field-development-in-hays-county.html>

⁸ John Thomas Dupnik, P.G. *A Policy Proposal for Regional Aquifer-Scale Management of Groundwater in Texas* 27

(2012) (unpublished Masters Thesis, The University of Texas), (available at https://repositories.lib.utexas.edu/bitstream/handle/2152/19658/dupnik_thesis_20129.pdf?sequence=1).

⁹ *Houston Texas Central Railroad Company v. W.A. East*, 98 Tex. 146, 81 S.W. 279 (1904).

landowner pumping groundwater from beneath his property to sell to a town.

The Texas Supreme Court discussed a New York case relied on by the plaintiff which involved cities pumping and selling groundwater.¹⁰ According to the Court, the New York court expressly adhered to the doctrine of the rule of capture “but considered that certain facts in the cases before them took them out of its operation. One of the facts was, the cities had drained an immense area to supply their inhabitants with water and were ‘making merchandise’ of it...”¹¹ The Court explained, “[t]he existence of these facts was expressly made the ground of the holding that the general doctrine as to taking out of one's own soil water that comes there by percolation did not apply.”¹²

The Texas Supreme Court recognized the difference between the facts in the New York case where groundwater was being sold and used by others and those before it in *East*, where the railroad was using groundwater for its own purposes. Additionally, the Court emphasized the holding in the English case, *Acton v. Blundell*, which serves as the foundation for the rule of capture in American jurisprudence, that “the owner of the soil is at liberty to dig therein and take away the percolating water for any legitimate *purpose of his own*.”¹³ The Court in *East* then held, “the defendant here is making a reasonable and legitimate use of the water which it takes from its own land.”¹⁴

The *East* decision suggests that had the railroad been exporting groundwater for a use that was not its own, the Court would not have considered the use to be reasonable or legitimate and might have crafted an exception to the rule of capture for the sale and export of groundwater. Subsequent Court decisions, such as *City of Corpus Christi v. City of Pleasonton*¹⁵ and *Texas Co. v. Burkett*¹⁶ either oversimplify or altogether ignore the *East* Court's analysis of the distinction between whether a landowner is using groundwater for his own purposes or whether he is selling it for use by others. The latter scenario, which includes groundwater exportation projects, is the crux of the modern day revulsion to the rule of capture, one that is breeding vehement conflict between landowners and which the Court would likely not have considered to be a reasonable and legitimate use when it first adopted the rule. The distinction is significant as proponents of groundwater exportation projects in unregulated areas

of the state, like the EP project or projects in Val Verde County, rely on the rule of capture to defend their right to unbridled pumping.

B. Inconsistent Policy: Public vs. Private Liability

The Texas Supreme Court's decision in *Edwards Aquifer Auth. v. Day* clarified that land ownership includes an interest in groundwater in place that cannot be taken for public use without compensation. This means that a landowner in a regulated area of the state can now bring a regulatory takings action against a groundwater conservation district whose regulations, which are aimed at conserving groundwater resources, limit or prohibit pumping of groundwater and are found to be unreasonable by a court under the factors articulated in *Penn Central Transp. Co. v. New York City*.¹⁷ In an unregulated area, however, a landowner whose groundwater is drained and pumped away by a private water supplier for sale, often to governmental bodies, such as cities or counties, has no remedy, no ability to protect his property from *actually* being taken, as opposed to just conserved.

Under Chapter 21 of the Texas Tax Code, public entities must compensate a landowner for the direct condemnation of groundwater rights taken for public use, and may become liable to the landowner for diminution in the value of his land resulting from excessive regulatory limitation upon pumping from his wells.¹⁸ If the same governmental body contracts with a private water supplier, however, to take the privately owned groundwater to sell to the public entity, then the landowners from whom the water is taken are left with neither water nor compensation.

In *Day*, the Court expressly stated that the rule of capture is not “antithetical” to ownership of groundwater in place.¹⁹ The rule may not be antithetical to ownership of groundwater, but it is certainly antithetical to *protecting* that ownership. As water law professor, Gerald Torres notes, “[a]lthough Rule of Capture may not preclude the idea of ownership of groundwater in place, it certainly strips the idea of ownership of what we normally regard as important attributes of property.”²⁰

The outrage over the EP project is a consequence of the conflict between the Court's pronouncement in *Day* that groundwater is a private property right

¹⁰ *Id.* at 150, discussing *Smith v. The City of Brooklyn*, 18 App. Div. 340 (1897).

¹¹ *Id.* at 151.

¹² *Id.* at 150 citing *Acton v. Blundell*, 12 Mees. W., 324.

¹³ *Id.* (emphasis added).

¹⁴ *Id.* at 151.

¹⁵ *City of Corpus Christi v. City of Pleasonton*, 154 Tex. 289, 276 S.W.2d 798 (1955).

¹⁶ *Texas Co. v. Burkett*, 117 Tex. 16 (1927).

¹⁷ *Penn Central Transp. Co. v. New York City*, 438 U.S. 104 (1978).

¹⁸ Texas Property Code § 21.0421(a).

¹⁹ *Day* 369 S.W.3d at 823.

²⁰ Gerald Torres, *Liquid Assets: Groundwater in Texas*, 122 Yale L.J. Online 143 (2012), <http://yalelawjournal.org/forum/liquid-assets-groundwater-in-texas>.

deserving of protection and the legal system's failure to protect this right in unregulated areas of Texas.

C. Groundwater Management

In 1999, the Texas Supreme Court upheld the rule of capture in *Sipriano v. Great Spring Waters of America (Ozarka)*²¹ when asked to decide whether the bottled water company could be held liable for pumping 90,000 gallons of groundwater a day from its property, resulting in neighboring landowners' wells going dry. While the Court recognized that the rule of capture is "harsh" and "outmoded" and has been "severely criticized," it was unwilling to change the law, instead, punting the decision of whether to abandon the rule of capture to the Texas Legislature.²²

The Court's decision in *Sipriano* rested primarily on the 1917 Conservation Amendment to the Texas Constitution, which places the duty to protect the State's natural resources in the hands of the Legislature and on the Legislature's efforts at that time to regulate groundwater in Senate Bill 1.²³ Article 16, section 59 of the Texas Constitution provides:

The conservation and development of all of the natural resources of this State, ... and the preservation and conservation of all such natural resources of the State are each and all hereby declared public rights and duties; and the Legislature shall pass all such laws as may be appropriate thereto.²⁴

As discussed earlier, the purpose of Chapter 36 of the Water Code is to "protect property rights" and "balance the conservation and development of groundwater to meet the needs of this state..."²⁵ According to the Water Code, "[g]roundwater conservation districts are the state's preferred method of groundwater management."²⁶

Since the *Sipriano* decision in 1999, the Legislature has made considerable progress in regulating groundwater across Texas. The Legislature has approved the establishment of 100 groundwater conservation districts.²⁷ Moreover, under Chapter 36 of the Water Code, the Legislature has created a process where groundwater districts with jurisdiction over shared aquifers work together in a groundwater management area ("GMA") to establish desired future conditions for these aquifers. Desired future conditions

or DFC's are "the desired, quantified conditions of groundwater resources (such as water levels, water quality, spring flows, or saturated thickness) at a specified time or times in the future..."²⁸ Under Chapter 36, a GMA submits the DFC for an aquifer to the Texas Water Development Board ("TWDB") who uses it to determine the modeled available groundwater ("MAG") for the aquifer. Groundwater conservation districts use the MAG as a factor in their permitting decisions, as Chapter 36 requires groundwater districts to manage groundwater in a way that achieves the adopted DFC.²⁹

The EP project demonstrates how a lack of groundwater regulation in parts of the state conflicts with the Legislature's constitutional duty to conserve natural resources and undermines the implementation of this responsibility under Chapter 36 of the Water Code. As Chief Justice Hecht wisely recognized in his concurring opinion in *Sipriano*, "[w]hat really hampers groundwater management is the established alternative, the common law rule of capture."³⁰ Furthermore, the EP project highlights how a patchwork approach to groundwater regulation, where the jurisdiction of groundwater districts is based on political boundaries rather than hydrological ones, is not always effective at protecting groundwater and achieving the Water Code's purpose and the Constitution's mandate.

The EP well fields are located in GMA 10, very close to the border of GMA 9. The Hays-Trinity Groundwater Conservation District, a member of GMA 9 and BSEACD, a member of GMA 10, were concerned that the project would interfere with their ability to achieve the DFC's for the Trinity Aquifer within their jurisdiction. Although both Hays-Trinity and BSEACD regulate the Trinity Aquifer, each district has a distinct DFC, as they are in different GMA's. The DFC for the Trinity in GMA 10 is a 25-foot maximum drawdown, whereas the DFC for the Trinity in GMA 9 is a 30-foot maximum drawdown. To make matters even more confusing, previously, the Hays-Trinity GCD was a member of GMA 10 and had adopted a zero-foot drawdown for the area of the Trinity Aquifer in GMA 10 within the jurisdiction of the Hays-Trinity GCD. Thus, the EP project had the potential ability to impact multiple DFC's within the jurisdiction of two different groundwater districts that are members of separate groundwater management areas *for the same aquifer!*

²¹ *Sipriano v. Great Spring Waters of Am., Inc.*, 1 S.W.3d 75 (Tex. 1999)

²² *Sipriano*, 1 S.W.3d at 78 (discussing *Friendswood Development Co. v. Smith-Southwest Industries, Inc.* 576 S.W.2d 21 (1978)).

²³ *Id.* at 79.

²⁴ TEX. CONST. art. XVI, § 59(a).

²⁵ Tex. Water Code § 36.0015(b).

²⁶ *Id.*

²⁷ *See*

http://www.twdb.state.tx.us/mapping/doc/maps/GCDs_8x11.pdf

²⁸ Tex. Water Code §36.108.

²⁹ Tex. Water Code §36.1071(a).

³⁰ *Sipriano* 1.S.W.3d 75 at 81, 83. (Hecht, J., concurring).

For the portion of the Trinity Aquifer within GMA 9 and managed by the Hays-Trinity GCD, the annual amount of water EP intended to pump (5,600 acre feet) was over half of the MAG (9,100 acre feet per year) that the TWDB determined is available to permit for the district to achieve its DFC. For the portion of the Trinity Aquifer within GMA 10 and managed by BSEACD, the Texas Water Development Board determined that the MAG is 1,288 acre feet a year. The amount of groundwater EP intended to pump was 4,300 acre feet more than the MAG. BSEACD was concerned that this excessive withdrawal of groundwater would interfere with the district's ability to achieve the DFC for the Trinity Aquifer.

In other areas of the state, pumping from aquifers in an unregulated county threatens the ability of a groundwater conservation district and GMA in an adjacent county to manage groundwater from the same aquifer. As "pumping in these areas is unregulated and, similarly, groundwater conditions are generally not monitored...the ability of a GMA to achieve a DFC with any level of confidence" is impacted.³¹ The TCEQ has established Priority Groundwater Management Areas, ("PGMA's") in areas of the state that are experiencing or are expected to experience critical groundwater problems. Critical groundwater problems include shortages of surface water or groundwater, land subsidence resulting from groundwater withdrawal, and contamination of groundwater supplies.³² Through the establishment of a PGMA, areas in need of a groundwater conservation district are identified, local initiative to create one is encouraged, and the TCEQ is authorized to establish a district if local initiatives to do so do not succeed.³³

In 1990, the TCEQ designated the majority of the Hill Country as a PGMA, because the Trinity Aquifer was expected to encounter critical water shortages in the near future.³⁴ In 2010, the TCEQ recommended the formation of a new groundwater conservation district to jointly manage the Trinity Aquifer in Hays, Comal and Travis counties, but political opposition thwarted

efforts to create a regional groundwater district.³⁵ At the time of TCEQ's recommendation in 2010, the Trinity Aquifer in Comal County and southwestern Travis County was not regulated by a groundwater conservation district. The Cow Creek GCD in neighboring Kendall County had concerns that unregulated groundwater pumping from the Trinity Aquifer in Comal County would impact the district's ability to effectively manage the aquifer. Recognizing the difficulties of managing a regional aquifer under a fragmented structure, one board member of the Cow Creek GCD stated, "[t]he water source doesn't respect county boundaries."³⁶ This past session, the Legislature passed a bill creating a groundwater conservation district to manage the Trinity Aquifer in Comal County. The Trinity Aquifer in southwestern Travis County, however, still remains unregulated.

Additionally, the northern part of Travis County and all of Williamson County are not regulated by a groundwater conservation district. Unregulated pumping of groundwater from the Edwards Aquifer in Williamson County is causing localized drawdown in Bell County, where the Clearwater Underground Water Conservation District has jurisdiction. In a 2005 report prepared by the TCEQ for Williamson, Burnet and northern Travis Counties, the TCEQ pointed out that there is no entity in northern Travis County or Williamson County that has "authority to control large-scale groundwater pumpage for private purposes that could potentially impact a shared groundwater supply."³⁷ According to the TCEQ, "[t]he Clearwater Underground Water Conservation District in Bell County noted the effectiveness of their groundwater management measures may be lessened if surrounding areas are not likewise managing the shared groundwater resource."³⁸

The EP project is just one of many examples of how unregulated pumping undermines the current management of groundwater under Chapter 36 of the Water Code and how the current, fragmented method of groundwater management in Texas is flawed.

³¹ See Dupnik, *supra* note 5, at 85 (referencing SENATE COMMITTEE ON NATURAL RESOURCES, Implementation of House Bill 1763 and Groundwater Management in Texas, INTERIM REPORT TO THE 81ST LEGISLATURE, at 5 (2009)).

³² SENATE COMMITTEE ON NATURAL RESOURCES, Implementation of House Bill 1763 and Groundwater Management in Texas, INTERIM REPORT TO THE 81ST LEGISLATURE, at 2 (2009).

³³ *Id.*

³⁴ Groundwater Conservation District Recommendation for Hill Country Priority Groundwater Management Area, TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, at 3 (June 2010).

³⁵ *Id.*

³⁶ Interview with Milan J. Michalec, Board Member, Cow Creek Groundwater Conservation District (May 7, 2014) *available at* <http://www.expressnews.com/news/local/article/Fair-Oaks-Ranch-project-raises-water-concerns-in-5461033.php>

³⁷ Updated Evaluation For the Williamson, Burnet and Northern Travis Counties Priority Groundwater Management Study Area, TEXAS COMMISSION ON ENVIRONMENTAL QUALITY at 3 (2005) *available at* http://www.tceq.state.tx.us/assets/public/permitting/watersupply/groundwater/pgma/2005_wilco_pgma_report.pdf

³⁸ *Id.*

According to John Dupnik, General Manager of the Barton Springs Edwards Aquifer Conservation District, “[m]anaging for sustainability or even some level of allowable depletion breaks down with small-scale county-based GCDs that do not have the power to regulate wells that are outside their district, even though such wells may draw from and deplete groundwater resources common to multiple districts.”³⁹

D. Water Planning

In addition to interfering with groundwater management, unregulated areas make water planning more burdensome in Texas. In general, the boundaries of a groundwater management area are based on the hydrological boundaries of aquifers.⁴⁰ Groundwater conservation districts within these boundaries makeup the voting members of a GMA.⁴¹ Under Chapter 36 of the Water Code, groundwater districts within a GMA are required to engage in joint planning, meeting annually to review management plans and proposals to adopt or amend desired future conditions.⁴² Through this joint planning, every five years a GMA either adopts a new DFC or amends an existing one and submits the new or amended DFC to the TWDB. The TWDB uses the DFC to determine the MAG for a particular aquifer. A MAG value is the amount of groundwater production, on an average annual basis, that will achieve a desired future condition.⁴³ As stated earlier, groundwater conservation districts use the MAG as a factor in their permitting decisions, but the MAG plays an important role in regional water planning decisions as well.

To help the state develop future water supplies, regional water planning groups in Texas are tasked with, among other things, quantifying current and projected population and water demand over a 50-year planning horizon and evaluating and quantifying current water supplies within each region.⁴⁴ Regional water plans are required to be consistent with the DFC for the relevant aquifer in the regional planning area and regional planning groups are required to use the MAG volume for groundwater availability.⁴⁵ Regional water planning groups may not recommend water management strategies that exceed the modeled available groundwater volumes.

As the boundaries of GMA’s follow the

boundaries of aquifers, within a GMA there can be portions of an aquifer not regulated by a groundwater conservation district. One example is GMA 8, which includes unregulated portions of the Edwards Aquifer in northern Travis and Williamson counties in addition to the regulated portion in Bell County. Because the MAG is based on the DFC adopted by groundwater conservation districts within the GMA, unregulated areas within a GMA are not represented in this process. While groundwater district representatives may appoint an advisory committee to represent the interests of unregulated areas during the joint planning process, these members are unable to vote, thus their contribution is limited.⁴⁶ The consequence is that unregulated areas of Texas do not have a role in determining groundwater availability and the water management strategies in the regional water plans that result. This is, “perhaps the most egregious example of insufficient representation,”⁴⁷ and it is entirely a consequence of a lack of groundwater regulation.

E. Impacts to Springflow and Surface Water

Texas law regulates groundwater and surface water as though they are distinct bodies of water. This is contrary to the water cycle, which as Charles Porter explains, teaches us that “surface water, diffused surface water, and groundwater are, have been, or will be ultimately in union with one another; water exists in a conjunctive relationship in all three geological containers all the time.”⁴⁸

As groundwater from an aquifer is pumped for irrigation, municipal, or industrial use, the water level in the aquifer is lowered and the result is decreased flow from springs at the surface. The lack of recharge to the aquifer caused by drought exacerbates the decline in groundwater levels and resulting diminished springflow. Reductions in springflow are problematic because springs sustain numerous creeks and rivers, especially during drought when surface runoff from rainfall is low. As springflow decreases, so does the flow of surface water, degrading aquatic habitats, threatening consumptive uses of water, interfering with recreational activities, and harming water quality. For example, Comanche Springs in Fort Stockton was once a treasured watering hole for travelers in west Texas and was the habitat of the endangered Comanche

³⁹ See Dupnik supra note 5, at 41 (referencing See C.W. Johnson, *The Continuing Void in Texas Groundwater Law: Are Concepts and Terminology to Blame*. 17 St. Mary’s L.J., at 1284 (1985)).

⁴⁰ Tex. Water Code § 35.004.

⁴¹ Tex. Water Code § 36.108(c).

⁴² Tex. Water Code § 36.108.

⁴³ Tex. Water Code § 36.001(25).

⁴⁴ See Tex. Water Code §16.053.

⁴⁵ 31 TAC § 357.32(d) and Tex. Water Code §16.053(e)(2-a).

⁴⁶ Tex. Water Code 36.1081(b).

⁴⁷ See Dupnik supra note 5, at 86.

⁴⁸ Charles R. Porter, *Sharing the Common Pool, Water Rights in the Everyday Lives of Texans* 8 (2014).

Springs pupfish before unregulated groundwater pumping upstream of the springs caused springflow to cease.

For many groundwater-dependent species, the quality of their habitat depends on consistent springflows of clean water. Increased groundwater pumping causes reductions in aquifer levels and decreased flow from springs, which in turn can degrade a species' habitat and lead to death or injury, a "take" under the Endangered Species Act ("ESA").⁴⁹ In 1991, the Sierra Club made that argument in a lawsuit brought against the United States Fish and Wildlife Service ("Service") that has become the poster child for how "[t]he Endangered Species Act became the instrument that eventually brought state regulation to the [Edwards] Aquifer and the end to unrestricted withdrawals of groundwater."⁵⁰

When unregulated groundwater pumping threatens spring flow or surface water flow, Texas law provides no mechanism for protection. Currently, there is no groundwater conservation district in Val Verde County that can restrict pumping to protect the Devils River Minnow habitat in San Felipe Creek. The Devils River Minnow is listed as a threatened species under the ESA. Proposals by a water supply corporation to pump groundwater from the Edwards-Trinity Aquifer in Val Verde County to counties in the Permian Basin, where the natural gas industry is prompting the need for an additional water supply, has many locals and environmental advocates concerned about the impact large scale groundwater withdrawals from the Edwards-Trinity Aquifer will have on the habitat of the Devils River Minnow.

In the Recovery Plan for the Devils River Minnow, the Service states that "delisting the Devils River Minnow should be considered when "[a]dequate flows in streams supporting Devils River minnow have been assured...through State or local groundwater management plans..."⁵¹ In addition, this year the Service is expected to issue a listing decision for the Texas Hornshell, a species of mussel found in the Devils River. Large groundwater withdrawals from the Edwards-Trinity Aquifer may also impact flows to the Devils River and the habitat of the Texas Hornshell. Without a groundwater conservation district in Val Verde County, however, there is no mechanism in place to ensure adequate springflow in San Felipe Creek or the Devils River.

As discussed earlier, the Conservation Clause of the Texas Constitution declares that "the preservation and conservation of all such natural resources of the State are each and all hereby declared public rights and duties."⁵² In unregulated areas of the state, however, the law is conflicting with this duty and failing to preserve and conserve groundwater, a natural resource.

IV. CONCLUSION

Groundwater regulation is fraught with conflict. The regulatory structure under Chapter 36 of the Water Code is imperfect, and across the state aquifers are being depleted. As pressures on the resource intensify as a result of urban growth, more and more unregulated counties will likely move toward regulation. Creating a new groundwater conservation district, however, doesn't eliminate conflict, and in some cases, it can fuel new tension. For example, enabling legislation that grandfather existing wells will likely generate future controversy as newly created groundwater conservation districts struggle with how to allocate a shrinking pie to more and more users when existing users have already gobbled up a large piece.

Even though under existing groundwater regulations groundwater in Texas is still declining, there is at least a framework in place to protect the resource and to protect people's property rights. Aquifers in unregulated areas of the state, the landowners who depend on them for their basic needs, and the springs and creeks that flow forth from them are, in contrast, exposed, and this vulnerability is generating conflicts. In this era where groundwater is a legally recognized property right, where groundwater is scientifically better understood, where it is expertly managed, where it is technologically and financially feasible to export, and where, perhaps most importantly, it is dwindling, an absence of groundwater regulation is unnecessarily complicating an already exceedingly contentious area of law and policy.

⁴⁹ 16 U.S.C. § 1538.

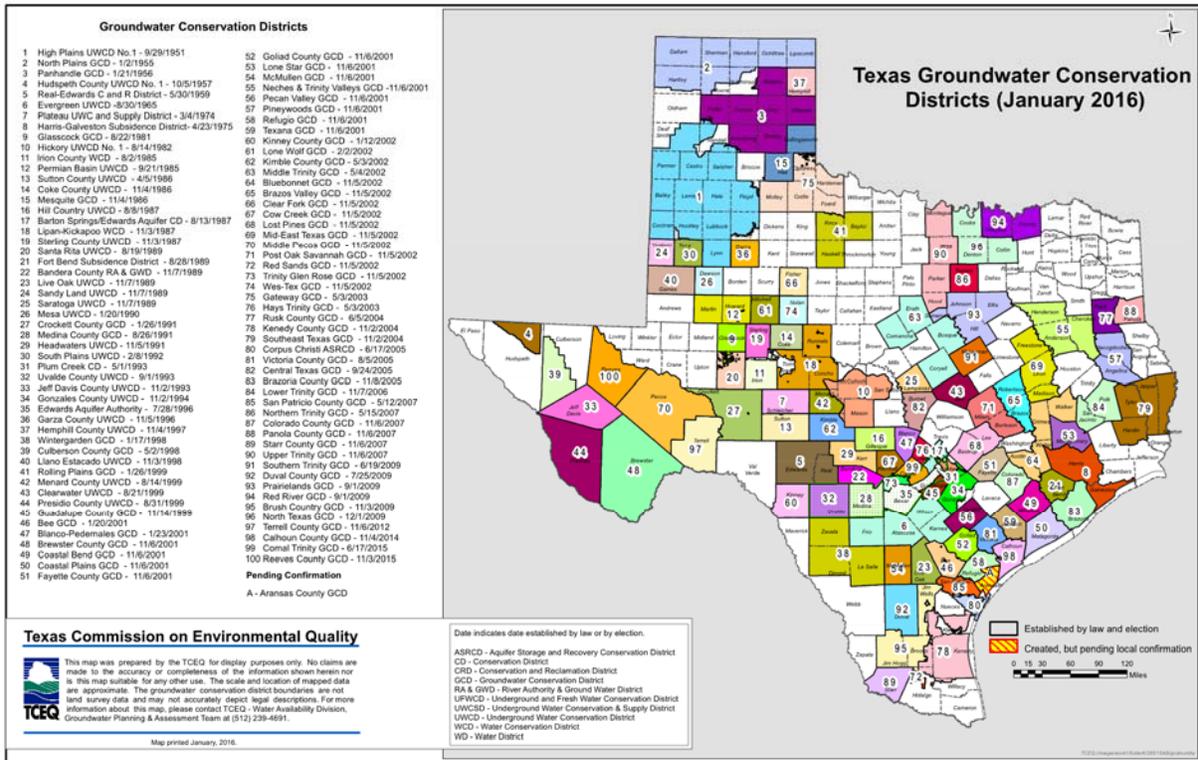
⁵⁰ Todd H. Votteler, *The Little Fish that Roared: The Endangered Species Act, State Groundwater Law, and Private Property Rights Collide Over the Texas Edwards Aquifer*, 28 *Envtl. L.* 845, Winter (1998).

⁵¹ U.S. Fish and Wildlife Service Recovery Plan for the Devils River Minnow, Executive Summary at iv

(September 2005) available at http://ecos.fws.gov/docs/recovery_plan/050913.pdf (viewed on November 11, 2014).

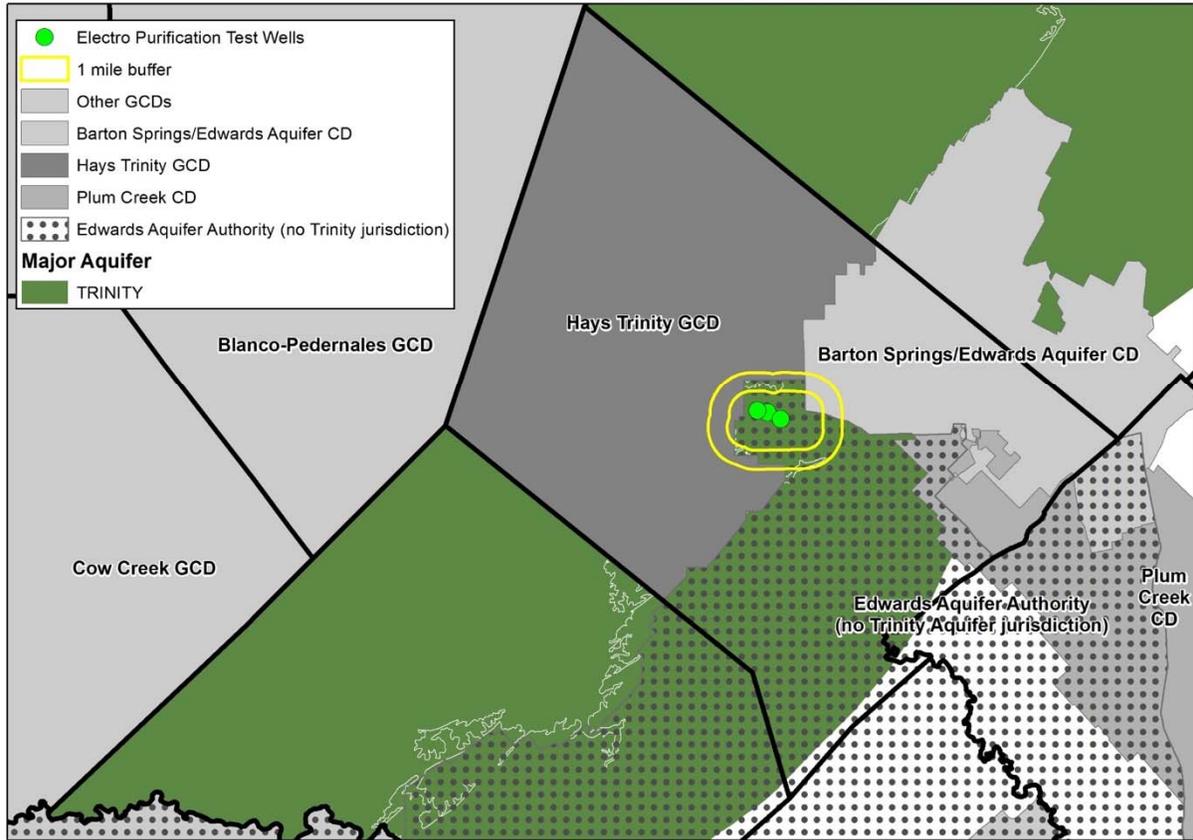
⁵² TEX. CONST. art. XVI, § 59(a).

APPENDIX A



APPENDIX B

Groundwater Conservation Districts covering Trinity Aquifer



APPENDIX C

